

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listing, of claims in this application.

**Listing of Claims:**

1. (Currently Amended) Polymer comprising units derived from ethylene, said polymer having:
  - a) a Melt Index of from 0.05 to 20 g/10 min, as determined by ASTM-1238 Condition E;
  - b) at least 10 per 1000 C-atoms of C1- to C5 short chain branches as determined by C13 NMR, and 1 to 3.5 mol % of units derived from a copolymerizable ethylenically unsaturated ester;
  - c) a density of from 0.90 to 0.94 g/cm<sup>3</sup>, as determined by ASTM D1505, and
  - d) a rheological relaxation time of at least 10 s,  
wherein the polymer is obtained by free radical polymerization using an  $\alpha$ -olefin chain transfer agent.
2. (Original) Polymer as claimed in claim 1 which contains at least four short chain branches per thousand carbon atoms containing three carbon atoms or less.
3. (Original) Polymer as claimed in claim 1 which contains at least five short chain branches per thousand carbon atoms containing three carbon atoms or less.
4. (Original) Polymer as claimed in claim 1 which contains less than 30 per 1000 C-atoms of short chain branches, containing five carbon atoms or less, as determined by C13 NMR.
5. (Original) Polymer as claimed in claim 1 which contains less than 20 per 1000 C-atoms of short chain branches, containing five carbon atoms or less, as determined by C13 NMR.

6. (Previously Presented) Polymer as claimed in claim 1 wherein the copolymerizable ethylenically unsaturated ester comprises ethylene vinyl acetate.
7. (Original) Polymer as claimed in claim 1 wherein the polymer contains at least 1 per 1000 C-atoms of all long chain branches, containing 6 or more carbon atoms as determined by C13 NMR.
8. (Original) Polymer as claimed in claim 1 wherein the polymer contains at least 5, per 1000 C-atoms of all long chain branches, containing 6 or more carbon atoms as determined by C13 NMR.
9. (Original) Polymer as claimed in claim 1 wherein the polymer contains from 1 to 3 mol % of units derived from a copolymerizable ethylenically unsaturated ester and at least 1 per 1000 C-atoms of all long chain branches, containing 6 or more carbon atoms as determined by C13 NMR.
10. (Original) Polymer as claimed in claim 1 wherein the polymer has a bimodal molecular weight distribution as determined by GPC DRI.
11. (Original) Polymer as claimed in claim 1 wherein the polymer has a relaxation time is less than 20 s.
12. (Original) Polymer as claimed in claim 1 wherein the polymer has a Melt Index of less than 15 g/10 min.
13. (Original) Polymer as claimed in claim 1 wherein the polymer has a Melt Index of less than 10 g/10 min.
14. (Original) Polymer as claimed in claim 1 wherein the polymer has a Melt Index of from 0.1 to 4 g/10 min for blown film extrusion.

15. (Original) Polymer as claimed in claim 14 wherein the polymer has a Melt Index of less than 2 g/10 min.
16. (Original) Polymer as claimed in claim 14 wherein the polymer has a Melt Index of less than 1 g/10 min.
17. (Currently Amended) Polymer, comprising units derived from ethylene, obtained by free radical polymerization using a chain transfer agent that incorporates into the polymer chain to provide a polymer having a Melt Index of from 0.05 to 20 g/10 min as determined by ASTM-D 1238 Condition E; less than 3.5 mol % of units derived from a copolymerizable ethylenically unsaturated ester; and at least 10 per 1000 C-atoms of short chain branches, containing five carbon atoms or less, as determined by C13 NMR, wherein the chain transfer agent is an  $\alpha$ -olefin, and in which the polymer is produced in a tubular reactor under circumstances to favor LCB formation in a downstream part of the tubular reactor and has a density of from 0.90 to 0.94 g/cm<sup>3</sup>.
18. (Original) Polymer as claimed in claim 17 wherein the chain transfer agent that incorporates into the polymer chain is propylene.
19. (Previously Presented) Polymer as claimed in claim 17, wherein the copolymerizable ethylenically unsaturated ester comprises ethylene vinyl acetate.
20. (Cancelled)
21. (Original) Polymer according to claim 20 in which the polymer has a density of 0.91 to 0.935 g/cm<sup>3</sup> as determined by ASTM D1505, and a relaxation time as described herein of at least 10 s.
22. (Original) Polymer according to claim 20 in which the polymer has a density of 0.92 to 0.93 g/cm<sup>3</sup> as determined by ASTM D1505.

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125. (Previously Presented) Polymer as claimed in claim 1 wherein the density is 0.91 to 0.935 g/cm<sup>3</sup>.
126. (Previously Presented) Polymer as claimed in claim 1 wherein the density is 0.92 to 0.93 g/cm<sup>3</sup>.
127. (Cancelled)
128. (New) Polymer as claimed in claim 17, comprising from 1 to 3.5 mol % of units derived from a copolymerizable ethylenically unsaturated ester.